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PART I - THE SCHEDULE

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I. Introduction

The Management and Operating Contract for the National Renewable Energy Laboratory (NREL) is a Performance-based Management Contract (PBMC). It reflects the application of performance-based contracting approaches which emphasize results and minimize "how to" performance descriptions. The Contractor has responsibility for total performance under the Contract, including determining the specific methods for accomplishing the work effort, performing quality control, and assuming accountability for the tasks listed in IV below. The performance-based requirements of this Contract are broadly set out in this Statement of Work and reflect the Department of Energy's (DOE) minimum needs and expectations for Contractor performance. Accordingly, this PBMC provides flexibility to the Contractor in managing and operating NREL.

In a Performance-Based Management Contract, it is the Contractor's responsibility to develop and implement innovative approaches and adopt practices that foster continuous improvement in accomplishing the mission of NREL. DOE expects the Contractor to produce effective and efficient management structures, systems, and operations that challenge the status quo while maintaining high levels of quality and safety in accomplishing NREL's assigned mission. The Contractor shall conduct all work in a manner that continually improves productivity, minimizes waste, and fully complies with all applicable laws, regulations, and terms and conditions of the Contract.

II. Background

The Solar Energy Research Institute (SERI) was established by the Solar Energy Research, Development, and Demonstration Act (Public Law 98-473) to perform research, development, and related functions in support of the nation's economic and energy goals. In fulfilling its mandate, SERI conducted activities in basic and applied sciences, resource assessment, and technology transfer across a broad spectrum of technical disciplines. SERI became the NREL in 1991 in recognition of its success in increasing the technical viability and economic competitiveness of renewable energy in partnership with the private sector.

NREL is a primary contributor to the accomplishment of the mission of DOE's Energy Efficiency and Renewable Energy Program. It is a world-class facility with major emphasis on the advancement and adoption of renewable energy technologies and practices. NREL activities also include efforts to advance and facilitate adoption of energy efficient end-use technologies.

NREL is a Federally Funded Research and Development Center (FFRDC) established in accordance with the Federal Acquisition Regulation Subpart 35-017. In fulfillment of its FFRDC obligations, NREL is a strategic partner with the DOE and is charged with assisting the nation with scientific research, analysis, and systems development. Additionally, NREL is responsible for integrating the expertise and outlook of industry, academia, and the DOE to solve complex technical problems that cannot be solved by any one group alone and for providing unbiased information to these entities to advance the nation's interests.

In carrying out its assigned mission, NREL integrates work across three domains: One, NREL's work covers energy from supply through conversion/storage/delivery to end-use -- the Energy Pathway; Two, NREL's work encompasses the full range of technology development from research and development through demonstration to facilitating deployment of these technologies in both US and international markets and; Three, NREL's work may be performed using NREL in-house capabilities and/or capabilities external to NREL.

To maintain its position as a world-class laboratory, NREL is expected to carry out its mission through a variety of partnerships with industries, universities and other research establishments. In addition, collaboration with other federal agencies and DOE national laboratories is expected.

Near, mid, and long-term RD&D is performed consistent with DOE program guidance and includes activities important to all sectors of the nation's economy: industrial; transportation; residential/commercial; and utility. To implement its mission priorities NREL must become a partner with DOE in strategic and planning activities. NREL must integrate and respond to shifts in priorities that affect energy pathways, maintain and enhance its world-class competencies to carry out the associated RD&D agendas, and work as a leader and effective partner with targeted industries. In so doing, NREL must conduct all of its activities consistent with the highest standards of environment, safety, and health.

III. Scope

Under this Performance-Based Management Contract, the Contractor shall furnish the necessary personnel, facilities, equipment, materials, supplies, and services (except those provided by the government) to ensure NREL can achieve its assigned mission. The Contractor shall, when directed by DOE and may, but only when authorized by DOE, enter into subcontracts for the performance of any part of the work under this Contract.

NREL has the responsibility to advance the nation's strategic interests by developing and facilitating deployment of technologies, capabilities, and information to the private sector. To this end, NREL must be maintained and enhanced with a broad capability in the basic and applied sciences, technology and market analysis, policy support, business and laboratory support, and facility operations. In executing its assigned mission, the Contractor is responsible for all aspects of the management and operation of NREL including planning and work execution. The DOE assigns NREL its mission priorities and reviews and approves NREL work activities.

The Contractor shall manage and operate NREL to conduct a spectrum of basic and applied research, development and demonstration activities and to facilitate deployment of these technologies in both US and international activities. Important disciplines in which NREL must be proficient include, but are not limited to, materials science, physics, chemistry, biology, engineering, analytical support, energy economics, technology transfer, program and business planning, education, and public outreach. This proficiency must include the ability to integrate efficiency and renewable technologies with conventional fuel supply sources. The Contractor also shall serve as an advisor to the DOE on the energy issues for which it has cognizance.

The Office of Energy Efficiency and Renewable Energy is the primary sponsor of work at NREL. However, NREL is expected to perform work for or with any DOE program sponsor (e.g., such as the Office of Energy Research and the Office of Fossil Energy), federal, state, or local entity, private sector company or research institution, or academic institution which supports or is related to DOE's mission at NREL, as approved by the Contracting Officer.

IV. Performance Requirements

Work shall be conducted by the Contractor, utilizing Contractor personnel, NREL facilities, and any other outside subcontracted sources in accordance with the laws of the United States, policies, procedures, and regulations of DOE and conforming procedures established by the Contractor, and subject to the provisions of this Contract. Specific program content shall be determined by DOE, after consultation with the Contractor, and shall be conducted in accordance with approved work authorizations from the Contracting Officer (see Section VI and the terms and conditions of the Contract).

The following elements are considered to be necessary to the successful operation and management of NREL:

1. **Science and Technology** - The Contractor shall conduct energy research, development, demonstration, and facilitation of private sector deployment activities leading to viable technology options that span energy pathways from supply options through conversion and delivery to end use applications.

The Contractor is expected to integrate NREL work across all domains to shape the set of RD&D activities.

The Contractor shall establish and conduct basic and applied energy research, development, demonstration, and facilitation of private sector deployment activities contributing significantly to the nation's international competitiveness in energy technologies. In accomplishing the Science and Technology element, the Contractor is expected, at a minimum, to perform the following key items:

- a. Formulate an optimized and integrated set of proposed RD&D activities to be submitted to DOE;
 - b. Implement and pursue the DOE approved optimized and integrated set of activities.
2. **Leadership** - The Contractor shall provide mission and institutional leadership that promotes NREL's national and international standing, ensures intellectual excellence, and fosters responsible stewardship for the DOE resource.

The Contractor shall provide the intellectual leadership and management expertise necessary and appropriate to manage, operate and staff the National Renewable Energy Laboratory in fulfillment of its assigned mission. In accomplishing the leadership element, the Contractor shall maintain accountability for the following:

- a. Resource allocation, program coordination, strategic planning, stakeholder involvement, and accomplishment of all tasks identified in the statement of work;
 - b. Ensuring the quality of its RD&D, and its operations; and
 - c. Maintaining and enhancing the national and global standing of NREL.
3. **Environment, Safety and Health** - The Contractor shall ensure that NREL protects the safety and health of the work force and the community, and protects the environment. The Contractor is responsible for the safety and health of workers and the public and the protection of the environment.

In accomplishing the ES&H element, the Contractor shall:

- a. Clearly communicate roles, responsibilities, and authorities of line managers and employees for ES&H;
 - b. Establish effective management systems to identify and mitigate risks;
 - c. Ensure adequate ES&H organization staffing and activity funding; and
 - d. Adopt the Integrated Safety Management System as the basis for NREL's ES&H program.
4. **Deployment, Outreach and Communication** - The Contractor shall increase awareness of energy technologies and facilitate their deployment through the implementation of effective technology transfer, technical assistance, educational, and communication activities to benefit customers and stakeholders.

The Contractor shall be responsible for working with the private sector to facilitate the deployment of energy technologies, increase public awareness and understanding of energy technologies, and provide technical, educational, and other assistance to customers and stakeholders. In accomplishing the Deployment, Outreach and Communication element, the Contractor, at a minimum, shall:

- a. Work with the private sector to facilitate deployment of energy technologies in both US and international markets and establish and maintain an aggressive program for outreach and communications;
 - b. Contribute to the development of primary and secondary educators' and students' knowledge in energy issues; and
 - c. Ensure that the NREL Visitor Center facilitates DOE energy interests with industry, community, and educators.
5. **Laboratory Viability** - The Contractor shall ensure the long-term viability of NREL through enhancement of institutional visibility and assuring retention of core scientific and business competencies and facility capability.

The Contractor shall be responsible for fostering the attributes of NREL that ensures its long-term institutional viability and meets its obligations under the FFRDC designation. In accomplishing the Laboratory Viability element, the Contractor, at a minimum, shall:

- a. Recruit and retain highly qualified scientific, engineering and support staff ;
 - b. Conduct a focused Laboratory Directed Research and Development program that enhances DOE's likelihood of successfully meeting its energy goals;
 - c. Maintain and expand NREL's research and support facilities and capabilities to ensure long-term facility availability and flexibility;
 - d. Develop, maintain, and enhance professional relationships that broadly promote scientific collaboration and technology transfer; and
 - e. Maintain the institutional flexibility to adapt to future mission assignments.
6. **Mission Support** - The Contractor shall implement, streamline, and enhance NREL support systems to allow for efficient execution of the RD&D mission and to guide decision making.

The Contractor shall provide integrated mission support activities to enable fiscal accountability, accurate and timely information availability and to provide for the development and maintenance of partnerships with industry, academia, and other governmental organizations. The Contractor shall, at a minimum, provide support in all areas of operations necessary for successful operation of NREL. Examples of these areas include, but are not limited to: budget; accounting; finance; human resource management; procurement; information management; legal; and external affairs.

V. Institutional Direction and Performance Objectives

The Contractor shall develop and have approved by DOE, a 5-Year Plan which describes the goals and objectives for NREL over the subsequent five year period. The initial plan will cover the period from October 1, 1998 through September 30, 2003 and will be approved within 90 days after Contract award. Thereafter, the plan shall be updated and submitted to DOE for approval on or before August 1 of each year.

The Contractor shall also provide DOE a 1-Year Plan describing its proposed institutional initiatives and goals for NREL considering all elements of the statement of work. This 1-Year Plan must be consistent with the strategic direction detailed in the Contractor's 5-Year Plan. The 1-Year Plan will be used by DOE to assist in DOE's development of performance objectives for assessment of the Contractor. One-Year Plans will be approved for each year of the Contract by DOE and, taken with the requirements in Section H-12, Work Authorization System, shall serve as the basis for annual work authorization. Once approved, the plan will be incorporated into the Contract.

For the first year of Contract performance, the Contractor shall submit the 1-Year Plan 90 days after Contract award. The initial Plan should address the Contractor's proposed institutional initiatives and goals for April 1, 1999 through September 30, 1999. Thereafter, the plan shall address a full year and shall be submitted to the Contracting Officer not later than August 15th of each year, unless another date is authorized by the Contracting Officer.